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## TEN RULES FOR SERVICE

### PRINCIPLES APPLIED BY THE RAILROAD COMMISSION OF CALIFORNIA TO THE REGULATION OF PUBLIC UTILITY SERVICE

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Only in recent years has the importance of service been recognized in public utility regulation. Regulating bodies addressed themselves primarily to rates. This disclosed inevitably the inter-relationship between rates and service. As this inter-dependence has come to be thoroughly understood, service issues have become predominant.

It is not my purpose to enumerate merely those regulations which have been adopted by the California commission, but rather to outline the broader principles which have guided it. Nor shall I assume to present the views of the California commissioners, but rather to interpret their decisions in the light of my own understanding.

A presentation of service principles must be predicated upon a proper understanding of the necessity for such service regulation. I shall, therefore, begin with a discussion of the necessity for service regulation; pass to the consideration of service principles; and conclude with an analysis of their practical application.

The necessity for the regulation of utility service is inherent in the very nature of these utilities. They are privately owned and operated for profit. Service is incidental and given only in so far as conducive to profit. Unbridled, a public utility gives a minimum of service for a maximum of rate. Individual protest proved futile. Collective opposition followed and then ensued public regulation.

It is upon this basic idea of service that public ownership of utilities finds its logical argument. A utility, publicly owned, is conceived for public service. It is not born solely for profit.

Considerations of service are elements of growth. Public utility enterprises differ from other enterprises primarily in the degree of the public interest attached thereto. We have been accustomed to think of public utilities as separable from other industries by reason

of their use of public property. We are now coming to regard them as separable from other industries by reason of the public's use in their properties. It is upon this premise that utility service assumes primal importance in utility regulation. We admit the public's use in a utility property, and we are called upon inevitably to determine the extent of that use.

We need go back barely a page in our history to discover that arbitrary usage and high-handed practices were substituted for efficient public utility service. To recall these conditions or to view them where they still exist is merely to remember that kings have been tyrants and would again be tyrants. Stranger, though, and difficult of understanding, were they not a certain outcrop of economic formations, are the many headstrong and stupid regulations which were enforced by the public utility against the public, but even more against itself.

The right of the public to adequate service has become axiomatic. It must be given by the utility either voluntarily or under compulsion; and if it can not be given under compulsion, the utility and not the public must give way. The public has always been a partner in public utility enterprises. It is no longer a silent partner. It may not have the majority of the stock, but it has the majority interest.

We therefore offer as Rule No. 1:

*Service must be measured primarily by the needs of the public and only secondarily by the ability of a given utility.*

Much of the earlier effort to regulate utilities was in retaliation. This took the form of revenue reductions. It was the most obvious point of attack and there was undoubtedly a certain sense of satisfaction that it hurt the most. But it followed as a natural sequence that the utility could shrink its service to meet the rate. Thus came the full understanding that rates and service are so closely entwined as to be inseparable.

Not so widely understood, but equally fundamental, is the fact that service is just as closely interwoven with securities. We may complete the trinity, for securities and rates are joined economically beyond the power of man to separate. We may assume at the outset, therefore, that the regulation of public utility service can not be dissociated from the regulation of public utility rates and finances.

The principles of service established by a regulating body may be as broad and no broader than the law from which that regulating body takes its authority. The public utilities act of California confers upon its railroad commission plenary powers of service regulation. The service jurisdiction is delegated directly through a grant of service authority and indirectly through grants of related power. These indirect powers come from the commission's jurisdiction over

1. Franchises
2. Consolidations
3. Rates
4. Finances

The principles of service as established by the California commission have been founded largely upon this related jurisdiction.

### *1. Franchise Power*

The public utilities act of California, in common with similar acts in most of the states of the union, provides that no utility may enter a new field without the commission's certificate of public convenience and necessity. This certificate is fundamentally a franchise. The California commission, like many other commissions, has not encouraged plant duplication. In many states this policy has been carried to the extent of apportioning permanently a fixed territory to a given utility. The California commission has never adopted this policy. It has protected utilities against competition in their given fields, but has given this protection only in so far and for such time as the utility rendered proper service at proper rates. The commission has held that the public, as a matter of right, was entitled to the best service at the lowest reasonable rate. It has held further that, if one utility occupied a field and another utility sought to enter, the first utility could be protected in its monopoly only if its service had been as adequate and its rate as reasonable as the new utility could give.

In one of its most important cases the commission found that a gas and electric company had not given adequate service and that its rates had been unduly high, and therefore, when a second utility sought to enter, the commission granted the necessary certificate. In another case which assumed state-wide importance, the commission found that the gas and electric company serving the city of

Stockton was rendering as complete service as the new applicant could offer and that the rates proposed in competition were not sufficiently different from those in force to warrant the substitution of the dual for the single agency.

In the case of the Pacific Gas and Electric Company against the Great Western Power Company the commission expressed its idea in these words:

We announce the rule that only until the time of threatened competition shall the existing utility be allowed to put itself in such a position with reference to its patrons, that this commission may find that such patrons are adequately served at reasonable rates. By announcing this principle, we hope we shall hold out to the existing utilities an incentive which will induce them voluntarily, without burdening this commission, or other governmental authorities, to accord to the communities of this state those rates and that service to which they are in justice entitled, and to the new utilities we shall likewise hold out the incentive that on the discovery by them of territory which is not accorded reasonable service and just rates, they may have the privilege of entering therein if they are willing to accord fair treatment to such territory.

This principle was reiterated in the case of the application of the Oro Electric Corporation for a certificate of public convenience and necessity to serve the city of Stockton.

In this way there has developed in California a sort of potential competition which of itself has aided greatly in the regulation of monopoly utilities. It has given, in effect, competition without duplication. It has brought about all that competition could bring about in the way of service improvement, and it has prevented those ills in the form of duplication of investment which flow from unregulated competition. In practice, the commission has found that this policy has served to bring about voluntary service improvements and voluntary rate reductions. It has been an automatic regulator, so to speak.

The enunciation of this principle has been followed by a marked decrease in minor complaints against utilities. It has, for instance, brought about the creation of special service, complaint and adjustment departments in most of the utilities. At the same time the entire level of rates, particularly in the electrical field, has been voluntarily reduced throughout three-fourths of California.

It has been found necessary in some instances where a local utility could not give the service, to allow the second utility to come

in, and where this has been done it has always been justified by the vast improvement in service and the reduction in rates.

The only danger to the public-interest in this general policy lies in a possible apportionment of state territory by agreement among the utilities themselves. The commission has already, in a recent decision, issued a warning against such a compact, and holds as a weapon of prevention its positive powers of service, rate and financial regulation.

We therefore offer as Rule No. 2:

*Adequate service is the price a utility must pay to hold a field free from competition.*

## 2. Consolidations

The California commission has authority to authorize the consolidation of utility properties. When matters of this kind come before it, the commission's inquiry goes to two matters: service and rates. If the consolidation will substantially improve the service and reduce the rates, the commission holds it to be in the public interest and therefore gives its approval. It does not encourage competition as such, but looks to the public interest to be subserved. If the consolidation is intended either to restrict service or to increase the rates, it is vetoed.

In actual practice, these consolidations have been in the public interest. The two schools of economists now wrestling with the nation's problems are divided upon this issue. The California commission, however, is repeatedly on record in favor of utility mergers in the public interest. Within the past year these two schools of economic thought have been brought into sharp contrast on California issues. The present national administration, through its attorney-general, after severing the Southern Pacific Railroad control from the Union Pacific directed that the Southern Pacific should divest itself of the Central Pacific. The purpose, as expressed, was to destroy monopoly and restore competition. It so happened that the California commission had jurisdiction over related features of this general plan. While the commission recognized the authority of the federal government so to proceed as it saw fit and as it interpreted the law, it expressed its belief that the railroad service would be impaired by the severance.

Within recent date the national administration, through the

attorney-general, has brought about the so-called dissolution of the American Telephone and Telegraph Company. The fundamental idea is presumably to restore competition. The California commission has repeatedly authorized the consolidation of telephone companies in California, always looking to betterment of service and decrease in charges upon the public. The attorney-general announces with some pride that he has persuaded the American Telephone and Telegraph Company to allow interchange with independent companies. The California commission has long since adopted as a definite policy compulsory interchange. This form of interchange means the substitution of a joint agency for a dual and competitive agency.

The California commission has gone a step further in its willingness to recognize the advantages of a single agency. Competition between telephone companies, for instance, carried to its ultimate conclusion, would entail a condition wherein a given city were served by two telephone companies with equal investment and with parallel and equal facilities; every householder possessed of two telephones; and the two agencies each performing one-half of the required service, although either could, with half the investment of the two, handle it all. Either the patrons must pay a return upon twice the required investment, or both of the telephone companies must go into bankruptcy, and bankruptcy, of course, means disruption of service.

We offer, therefore, as Rule No. 3:

*The highest type of service may best be obtained through a single agency.*

### 3. Rates

It is an aphorism that one gets what he pays for. So it is with public utility service. Service cannot be measured of and by itself. It bears a fixed relationship to rate. If a regulating body fixes a rate for utility service and then neglects to maintain a standard of service, it might as well never have fixed the rate. The public pays in rates a fixed sum for which it should receive a fixed return in service. The natural tendency of man being to profit himself, utilities, unregulated, would give a minimum of service for the rate. Eggs are not more infinite in their variety than is service; as with eggs one gets what he pays for, so with service.

This principle has been uniformly recognized by the California commission. Not only does the commission fix rates in relation to the service but when it finds a utility alone in a given field and unable to render service, it readjusts the rate to correspond to the deficient service. In a water case in southern California the commission, finding the flumes of the company inadequate and deficient and the service barely tolerable, ordered that the company's rates be reduced until such time as the service was made adequate.

President Ripley of the Santa Fé Railway, in contrast with some of his railway colleagues, has taken the position that an increase in rates is desirable for the betterment of service. In his testimony before the railroad commission he said: "It is almost true that we have only imitations for railroads. We haven't got what we ought to have. We haven't got properties that are going to be equal to the strain on them if we continue to grow, in a few years more." He had reference to the necessity of making those improvements which went directly to the benefit of service.

Following its investigation of a wreck upon the electric line of the San Francisco, Napa Valley and Calistoga Railway, the California commission indicated the necessity of capital expenditures primarily in the interest of safety. Recognizing the inseparable relation to rates, the commission said:

Most of these interurban lines should be protected by block signals, and our engineer has been directed to have a thorough investigation made of all these roads with a view to requiring the installation of block signals at once in the more urgent cases and gradually in all cases. If the installation of the necessary safety devices requires an increase of the rates of these utilities, such increase will be allowed. The traveling public has a right to be protected, and should be willing to pay for such protection. Up to the present time, however, in this state, it can not be said by any public utility that its failure to install proper safety devices is due to inadequate rates. No suggestion has come from any one of them that this commission permit an increase in rates for this purpose. The commission stands ready at all times, however, to permit rates high enough to pay a reasonable return upon the fair value of the property devoted to the public service, good wages to experienced men, and installation of such appliances as may be necessary to promote the safety of the traveling public and employees of the utilities under its jurisdiction.

We offer, therefore, as Rule No. 4:

*Utility rates should be adjusted to fit the quality of service rendered.*

#### 4. *Finances*

There are some thinking men who still doubt the wisdom of public regulation of utility securities. The regulation of stocks and bonds, however, has become one of the most important functions of the California commission. As this work has broadened the commission has been impressed with its necessity. It is difficult to understand how doubt can still exist on this question when recent revelations have shown the ugly manipulations in the unregulated issues of New Haven, Rock Island and "Frisco" securities.

An over-capitalized utility can pay return upon its securities only through exorbitant rates or inadequate service. The regulating body may prevent the exorbitant rate but it must be at the sacrifice of service. In most of our American cities, the 5-cent street railway fare has been accepted as fixed. Obviously, earnings can be paid on over-capitalization only through the impairment of service. It is safe to say that a majority of the street railway enterprises in the large American cities have been so over-capitalized that their whole endeavor has been to make good this capitalization through neglect of service. This has in some instances given our large American cities merely the shadow instead of the substance of service. Routing is restricted to the congested districts; the outlying sections are unserved; an insufficient number of cars are operated; the road-bed is not maintained; a public clamor ensues; there is much talk but no service.

In its regulation of security issues the California commission has endeavored to authorize only those securities upon which return might reasonably be paid under a proper operating rate wherein adequate service is maintained. In all security regulation the California commission insists that the financial structure of a utility shall be such as to limit charges so as to leave a net earning of sufficient size to insure proper continuance of service. Where necessary, the commission has directed utilities to reorganize in the interest of service. It has not waited for bankruptcy but required the re-casting of the financial frame so as to admit of the service to which it holds the public entitled.

We offer, therefore, as Rule No. 5:

*Security issues should be so regulated as to render the utility financially able to meet all reasonable demands for service improvements.*

*5. Jurisdiction over Service and Extensions*

The direct grant of service authority in the California law enables the commission to prescribe first, the extent of service; and second, the character of service. A somewhat general provision of the act gives the commission whatever latitude may be required in the exercise of its jurisdiction to regulate public utilities. This confers jurisdiction over any matters of service which might have been omitted from the act or which may hereafter be necessary. We may assume, however, that the entire field may be covered by regulating the extent and character of service.

The California commission has authority in prescribing the extent of utility service to require utilities to extend their facilities, to restrict their facilities, or to unite their facilities.

In the broad exercise of its authority to require extension service, the commission has held that the utilities must make such extensions as are reasonably required for the public convenience in their respective fields. This authority has been construed to require utilities both to extend their operations into new fields and to widen their operations in fields already served.

The San José Railroad, for instance, was directed to construct a standard gauge line of railway to connect with its previously constructed line to Alum Rock Park. A water company in southern California was directed to take over and operate a water system in a territory which it had not previously undertaken to serve. The Pacific Telephone and Telegraph Company was directed to give service in the town of Saratoga, in Santa Clara County, although at the time it had not undertaken to serve the territory.

The commission has required of all utilities that they make reasonable extensions. Utilities have been obliged to pay the cost of ordinary service connections and meters, and to lay such mains as may be necessary for the maintenance of a proper supply. The commission has provided that unusual extensions, the cost of which would throw an additional burden upon existing patrons, may be provided by a division of the cost thereof between the utility and the patron or patrons to be served by the extraordinary extension.

The California commission has had a special problem in the regulation of irrigation service. The season of 1913 was rated as a dry year. Irrigation service fell off and complaints poured in upon the

commission. As a solution, the commission directed the irrigation utilities to make the expenditures necessary to enlarge their water supplies, and in return directed that the patrons should pay additional rates as a return upon the added investment of the water corporations. The effect was to give a greatly improved irrigation service at a very small increase in rate. Only in rare instances was there objection to this policy, either from the water utility or its patrons.

We therefore offer as Rule No. 6:

*Every utility must make such extensions or provide such additions as may be reasonably required so far as its rates will enable it to earn a fair return upon its property.*

The California commission has power to restrict the extent of service of water utilities. This power was given to correct the tendency of irrigation companies to undertake to serve a greater acreage than their supply of water would permit. Lands were marketed in the belief that they would have an inherent right in the water, but in practice it developed that large acreages were left unserved or only partly served because the amount of water available was insufficient. Under the authority thus conferred, the commission has restricted the territory of water companies to the limits which they can adequately serve. This policy has been adopted in irrigation and domestic use.

The same primary idea prevails in the regulations adopted by the commission for the distribution of natural gas which restrict sale for domestic use and admit of sale for industrial purposes only after the domestic demand has been adequately met.

We therefore offer as Rule No. 7:

*A utility with limited product must be restricted in its operation to the area in which it can render adequate service.*

The joint use of facilities has been adopted by the California commission as a means of bringing about a desired service by united agency where the single agency was not equipped for its performance. The commission has required that through routes and joint rates be established between steam and electric lines. This has augmented to a remarkable degree the transportation service of rural communities. Carrying forward the same policy, independent telephone companies have been required to make physical connection when such connection would serve the public interest. In the so-called Union

Pacific-Southern Pacific merger case, an arrangement was sought by the railroads whereby the Southern Pacific and Union Pacific should interchange and each use the other's facilities. The commission found no objection to this in and of itself, but insisted that this arrangement could be legalized only if both parties extended the same right to any other carrier which might desire it. The commission's purpose was not to restrict, but to enlarge the policy of joint usage and interchange. The advantages of such a service requirement are manifest. The entire principle is based upon public convenience.

We offer, therefore, as Rule No. 8:

*Every utility must extend the use of its facilities to any other utility to perform a service which the first utility is, itself, not able to perform.*

When we pass from a consideration of the extent of service to the character of service, we enter upon a wide realm. It is not my purpose to detail the manifold rules and regulations upon which the character of service is based, but to indicate merely the broader foundations upon which it is grounded.

The regulation of the character of service must be in the interest of (1) public convenience and (2) public safety. The California commission has prescribed a series of rules providing for proper train schedules, train stops, for the care of railway facilities, and for the convenience of passengers while using these facilities. Blanket orders have been issued prohibiting any curtailment of facilities without the express authority of the commission. Such new service requirements as appear to be necessary from time to time are prescribed for each branch of utility enterprise. Regulations have been put into effect in different communities for gas service and telephone service prescribing in minute detail the quality, pressure, etc., for gas, and the switching regulations and time allowances for telephone services.

In addition, the commission has undertaken broader inquiries into utility service where the prime consideration was the convenience of the public. Such an issue was involved in the commission's inquiry into the proposed contracts between the Southern Pacific and the Union Pacific railroads. Service to the shipping and traveling public was the prime motive of the commission's research. In another instance the commission called into question all of the prac-

tices of the Pullman Company, delving into the system in its most minute ramifications.

A broad inquiry that has had for its purpose both public convenience and public safety has been the extensive investigation into inductive interference between high tension power lines and telephone lines. Complaint was made to the commission by telephone companies that the construction of high tension power lines in close proximity to their wires produced inductive interference and rendered the telephone lines non-commercial. Danger to human life was put forth as a secondary complaint. Neither the telephone corporations nor the power corporations could assert a prior right in a public highway and the very nature of the two enterprises made it necessary that their lines should come into close proximity at certain points.

The issue was such a large one that the California commission appointed a joint committee composed of representatives of the commission and representatives of both the power companies and the telephone companies of the state. This committee was instructed to conduct experiments and scientific research and formulate a plan by which this inductive interference could be eliminated. This committee has conducted field experiments over a period of a year and has already made such headway as to encourage the belief that some effective solution may be evolved.

We offer as Rule No. 9:

*Utility service regulations must combine a maximum of convenience to the public with a maximum degree of protection to the utility.*

I have chosen to emphasize the importance of safety in service regulation by construing it as a finality. In any consideration of the subject the principle that recognizes the priority of safety finds no dissenters and the problem reduces itself merely to the means of bringing about the desired result. Block systems, automatic crossing signals, interlocking devices, flagmen, steel equipment, all have been tried and all have brought beneficent results but we still find that wrecks occur. It is being impressed upon the minds of the regulating authorities that, while they have placed heavy reliance upon the efficacy of mechanical protection, they have overlooked the human element. This apparently is the conclusion which the Interstate Commerce Commission has now reached. We quote from

the last annual report of the Interstate Commerce Commission for the year ending December, 1913:

The commission again is compelled to note the exceedingly large proportion of train accidents due to dereliction of duty on the part of employees. Fifty-six of the accidents investigated during the year, or nearly 74 per cent of the whole number, were directly caused by mistakes of employees. These mistakes were of the same nature as those noted by the Commission in its last annual report, namely, disregard of fixed signals; improper flagging; failure to obey train orders; improper checking of train register; misunderstanding of orders; occupying main track of superior train; block operator allowed train to enter occupied block; dispatcher gave lap order or used improper form of order; operator made mistake in copying order; switch left open in face of approaching train; excessive speed; failure to identify train that was met.

These errors are exactly the ones which figure in the causes of train accidents year after year. Their persistence, leading always to the same harrowing results, points inevitably to the truth of one or the other of the following alternatives: Either a great majority of these deplorable railroad disasters are unavoidable or there exists a widespread lack of intelligent and well directed effort to minimize the mistakes of employees in the operation of trains. It is not believed that all those accidents which are caused by the mistakes of employees are unavoidable. It is quite true that man is prone to error, and as long as absolute reliance is placed upon the human element in the operation of trains, accidents are bound to occur, but until it can be shown that all reasonable and proper measures have been taken for its prevention no accident can be classed as unavoidable.

All of the mistakes noted above are violations of simple rules which should have been easily understood by men of sufficient intelligence to be entrusted with the operation of trains. The evidence is that in the main the rules are understood, but they are habitually violated by employees who are charged with responsibility for the safe movement of trains. The evidence also is that in many cases operating officers are cognizant of this habitual disregard of rules and no proper steps are taken to correct the evil. Many operating officers seem to proceed upon the theory that their responsibility ends with the promulgation of rules, apparently overlooking the fact that no matter how inherently good a rule may be, it is of no force unless it is obeyed. On very many railroads there is little or no system of inspection or supervision of the work of train service employees so far as pertains to those matters which vitally affect safety. Employees are not examined on the operating rules except at the time of their promotion, and only the most perfunctory efforts are made to determine their fitness to perform duties assigned to them from time to time.

In thus expressing itself the Interstate Commerce Commission has affirmed a belief expressed by the California commission and duly acted upon. The California commission took the view that

many of these wrecks were due plainly to the human element and addressed itself to the problem of minimizing as far as might be the human liability to err. The commission did not assume to place responsibility upon the employees but put it squarely on the shoulders of the operating officials of the carriers.

The California commission, in passing upon the wreck on the San Francisco, Napa Valley and Calistoga Railroad, in which 13 persons were killed and 28 injured, said:

It is manifestly impossible for this commission to require employees of utilities to comply in all respects with the rules adopted by such utilities unless it be given a force sufficiently large to operate the utilities of the state. Of course this can not be done and it should not be expected, but the commission and other public authorities can and will require the officials of these companies to see that their rules are complied with or assume the legal consequences of such failure. Regard for the public welfare, if not for the property under their control, should induce managers and owners of public utilities to see that they are safely operated. While we shall to the extent of our ability check the violations of the rules, still we must look to the officials of the companies to see that the rules are complied with. One of the main causes of wrecks from violations of rules, in our opinion, is the failure of officials of railroads to see that violations of rules are punished regardless of the result of such violations. The practice too common is merely to discharge or punish that employee whose violation of the rules has resulted in disaster. Violation of a rule which results in no disaster should and must be as severely dealt with as the violation which is not successful and which results in loss of property or life. We desire to impress this fact upon the public utility officials and owners and to insist that it is their duty to see that the proper rules are complied with in every respect and they should not feel that they have acquitted themselves properly when they discharge or punish the employee when disaster has been the consequence of his failure to comply with the rules. We can reach no other conclusion than that many officials of railroads at present connive at and in effect sanction departure from or violation of important rules of safety in those instances when no damage results therefrom. This practice must be discontinued.

In its findings upon the wreck of the Pacific Electric Railway Company when 16 persons were killed, the commission again found that the operating officials of the road were responsible through failure properly to instruct and train their employees. In this case the commission passed upon the roadbed, rails, equipment and general operating conditions of the railroad. As a result of its inquiry, it directed the company to prepare plans to block signal its system, to safeguard its dangerous crossings by automatic signals or grade

eliminations and to submit plans for the proper drilling of its trainmen. These matters are now under way. It is of particular interest, however, that the company has, following the suggestion of the commission, opened a school of instruction for its men. In this school are taught all of the operating rules and regulations until they are thoroughly mastered. Not the least interesting feature of this school is the use of moving pictures for purposes of illustration.

Previous to both of these accidents, however, the California commission had organized a service staff consisting of two men. One had formerly been the general superintendent of a large railroad, and the other had been the chief dispatcher of one of the large transcontinental railways. These two men were sent throughout the state and investigated the operating rules of every carrier, paying particular heed to the method of their enforcement.

It was one of those rare coincidences that the commission had, on the day of the accident on the San Francisco, Calistoga and Napa Valley Railroad, sent instructions to that company to revise its operating rules and to eliminate therefrom the very practices which resulted in the wreck. This line of safety work has been carried into other utility fields and is being extended constantly by the California commission.

We offer, therefore, finally but foremost, Rule No. 10:

*The first consideration in utility service must be safety.*